

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NE-11-AD; Amendment 39-12924; AD 2002-21-17]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney JT8D-200 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Pratt & Whitney (PW) JT8D-200 series turbofan engines. This amendment requires the installation of stops on the fan exit guide vane case. This amendment is prompted by reports of the flange between the fan duct case and the fan exit guide vane case separating due to a fan blade fracture event. The actions specified by this AD are intended to prevent the flange between the fan duct case and the fan exit guide vane case from separating due to a fan blade failure. Separations of that flange could result in damage to the airplane.

DATES: Effective November 29, 2002. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of November 29, 2002.

ADDRESSES: The service information referenced in this AD may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-6600; fax (860) 565-4503. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to Pratt & Whitney (PW) JT8D-200 series turbofan engines was published in the Federal Register on July 10, 2002 (67 FR 45680). That

action proposed to require the installation of stops on the fan exit guide vane case in accordance with Pratt & Whitney (PW) service bulletin No. 6100, Revision 2, dated December 9, 1998.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Exemption of Stops for Improved Fan Blade Incorporations

One commenter states that the fan exit guide vane case stops should not be required for engines that incorporate the improved fan blades required by AD 99-10-11. The commenter states that the installation of the improved fan blades prevents fan blade failures which cause fan case failures; therefore, the stops should not be required once the improved fan blades are incorporated.

The FAA does not agree. It is true that the fan blade modification mandated by AD 99-10-11 greatly improves the durability of the fan blades. However, the modifications cannot guarantee that a fan blade will never be released for any cause. Further, airworthiness standards for engines require that the design and construction of engines be such that failure of the most critical fan blade does not lead to an unsafe condition. Separation of the fan exit guide vane case from the fan duct assembly can lead to a number of unsafe conditions that hazard the aircraft. The intent of this AD is to return the engine to the level of safety prescribed by the airworthiness standards in the Code of Federal Regulations.

Change Definition of Shop Visit

Two commenters state that the definition of shop visit should be changed to exclude line-maintenance type shop visits.

The FAA agrees. The shop visit definition has been changed in this final rule.

Increased Operational Costs

One commenter states that the installation of the stops will add additional weight that will increase the operational costs associated with increased annual fuel requirements and therefore this AD should not be issued.

The FAA does not agree. While the annual fuel burn requirements may increase due to additional weight, the FAA has determined that this potential cost increase is outweighed by the increase in safety that will result from the lower risk of aircraft damage after the installation of the stops.

Applicability Clarification

One commenter states that the applicability section needs clarification to indicate which case and duct part numbers the stops must be installed on.

The FAA agrees. The applicability has been changed to state the part numbers for the cases and the ducts that will require the installation of the stops in the AD.

Allow Additional Options for Rubber Strips

One commenter states that the AD should allow additional options for rubber strips on the forward ID of each stop to prevent vibration instead of using silicone and allow bolt hole clocking options for the stops. The commenter states that the silicone is cumbersome to apply and difficult to remove, and the clocking options are requested to prevent interference with brackets or case repairs.

The FAA does not agree. The FAA is not familiar with the details of the design changes being requested, however, we will evaluate them as an alternate method of compliance if submitted in accordance with paragraph (d) of this AD.

Previous SB Compliance To Constitute AD Compliance

One commenter requests that compliance with the previous SB's PW ASB 6100, Original and Revision 1, constitute compliance with the AD. Many of the commenter's engines have already complied to the earlier SB's.

The FAA agrees. Credit for compliance to earlier revisions of PW ASB 6100 has been added to this final rule.

Agreement With Proposal as Written

The National Transportation Safety Board agrees with the proposal as written.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Economic Analysis

There are approximately 1,346 PW JT8D-200 series engines of the affected design in the worldwide fleet. The FAA estimates that 821 engines installed on airplanes of U.S. registry would be affected by this AD. The FAA also estimates that it would take approximately 1.5 work hours per engine to perform the actions, and that the average labor rate is \$60 per work hour. Required parts would cost approximately \$5,200 per engine. Based on these figures, the total cost of the AD to U.S. operators is estimated to be \$4,343,090.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rgl"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-21-17 Pratt & Whitney: Amendment 39-12924. Docket No. 2002-NE-11-AD.

Applicability: This airworthiness directive (AD) is applicable to Pratt & Whitney (PW) JT8D-209, -217, -217A, -217C, and -219 series turbofan engines that do not incorporate the fan exit guide vane case, part number (P/N) 805919 or 815377, and the improved durability and impact resistant fan duct assembly, P/N 805918-01. These engines are installed on, but not limited to McDonnell Douglas MD-80 and series airplanes.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Compliance with this AD is required as indicated, unless already done.

To prevent the flange between the fan duct and the fan exit guide vane from separating due to a fan blade failure, which could result in damage to the airplane, do the following:

Installation of Hardware

(a) At the next shop visit after the effective date of this AD, install stops on the fan exit guide vane case in accordance with paragraphs 2.A. through 2.C.(1) of the Accomplishment Instructions of Pratt & Whitney (PW) service bulletin (SB) No. 6100, Revision 2, dated December 9, 1998.

(b) Engines that have had stops installed using PW SB No. 6100, Revision 1 dated April 9, 1992, or original issue dated November 9, 1992, are considered to be in compliance with paragraph (a) of this AD.

Definitions

(c) For the purposes of this AD, a shop visit is defined as an engine removal, where engine maintenance entails separation of pairs of major mating engine flanges or the removal of a disk, hub, or spool at a maintenance facility regardless of other planned maintenance except as follows:

(1) Engine removal for the purpose of performing field maintenance type activities at a maintenance facility in lieu of performing them on-wing is not a shop visit.

(2) Separation of flanges of the combustion chamber and turbine fan duct assembly (split flanges) for the purpose of accessing non-rotating accessory hardware is not a shop visit.

(3) Separation of flanges for the purpose of shipment without subsequent internal maintenance is not a shop visit.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated By Reference

(f) The installations must be done in accordance with Pratt & Whitney (PW) Service Bulletin No. 6100, Revision 2, dated December 9, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-6600, fax (860) 565-4503. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

Effective Date

(g) This amendment becomes effective on November 29, 2002.

Issued in Burlington, Massachusetts, on October 18, 2002.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 02-27183 Filed 10-24-02; 8:45 am]

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